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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,797	10/11/2001	Michael L. Walker	194-15337CIP	9540

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EXAMINER
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TUCKER, PHILIP C

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 09/23/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/975,797

Applicant(s)

WALKER, MICHAEL L.

Examiner

Philip C Tucker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5,10-13,15-17 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,10-13,15-17,22 and 24 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The compounds in the last three lines of the claim, such as piperidines, piperazines, etc, are inclusive of compounds which are not alkyl or aryl amines as defined in lines 7-13 of the claim.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

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(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 1, 3-5, 10, 12, 13, 15-17 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (4836941).

Thomas teaches zinc halide and calcium halide brines having densities within the scope of the present invention, wherein hydroxylamines (polyalkoxylated amines) are used as corrosion inhibitors (see example 2 and Table V). The present invention is thus anticipated by Thomas.

5. Claims 1, 3, 10-13, 15, 22 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Mishra et al. (5891225).

Mishra teaches a brine which comprises a halide salt, such as calcium chloride at levels of up to 42 weight percent (see claim 3 and examples), wherein a hydroxy carboxylate and polyalkoxylated amine (a type of hydroxylamine) are used as corrosion inhibitors (see claims 1 and 2). A brine level of 42% by weight would clearly be greater than the 11 lbs/gal taught in the claims.

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6. Claims 1, 3, 12, 13, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Beazley et al. (5935487).

Beazley teaches a brine which comprises calcium chloride, and a corrosion inhibitor of a diethanolamide product, which is a type of hydroxylamine (see claims 1-4). Beazley exemplifies calcium chloride brines comprising 35 weight percent of the salt, which would clearly have greater than 11 lbs/gal density.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3, 10, 12, 13, 15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson (5846450).

Atkinson teaches a brine which comprises formates, such as potassium formate, and which can further comprise water, ammonia and corrosion inhibitors, such as triazoles (see claims 4-8). The levels of as high as 70% potassium formate would result in brines within the density level of greater than 11 lbs/gal. Atkinson teaches that combinations of water and ammonia may be used as the solvent (claim 5). Atkinson differs in that a combination of water

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and ammonia as the solvent is not disclosed in an example, and a specific example of using a triazole is not disclosed. However, it would be obvious to vary the amount of ammonia and water as a combination solvent, including within the concentration ranges of the present invention, in the invention of Atkinson, given the teaching of Atkinson that such combinations may be used as solvents, and may be used to provide specific refrigerant vapor (column 3, lines 42-47). The use of triazoles as corrosion inhibitors in the brine of Atkinson, would be obvious to one of ordinary skill in the art, given the teaching of Atkinson that such triazoles are useful for corrosion inhibition in the brine (column 3, lines 48-52). Such triazoles would be encompassed by the teaching of azoles by the claims.

9. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


10. Applicants arguments have been considered, but are not deemed fully persuasive. Applicants amendment has distinguished over the JP reference. With respect to Beazley, Mishra and Thomas, each of such references teach hydroxylamine compounds which are within the scope of applicants claimed species. Clearly such compounds when added to such solutions

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would increase the pH of the solutions, as is well known for amino type compounds. With respect to Atkinson, the use of a combination of ammonia and water would clearly be taught to one of ordinary skill in the art, and is part of the claimed invention (see claim 5). Ammonia would clearly raise the pH of the solution. Although Atkinson does not add the ammonia for the same reason as applicant does, this is not a patentable difference as applicant has argued. Case law has held the such reason for addition is not a patentable distinction (In re Jones 50 USPQ 49, In re Mod 168 USPQ 281, In re Lindner 173 USPQ 580).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tucker whose telephone number is (703) 308-0529. The examiner's normal working hours are 7:30am-4:00pm, Monday-Friday. If necessary SPE Robert Dawson may be contacted at 703-308-2340. For inquiries of a general nature call the receptionist at 703-308-0651. The group FAX no. is 703-872-9306.

PCT-2809  
September 22, 2003

  
**PHILIP C. TUCKER**  
**ART UNIT 1712**